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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,801	07/10/2001	David Hugh Muir	29757/P-396	7920

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EXAMINER

ENATSKY, AARON L

ART UNIT PAPER NUMBER

3713

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,801

Applicant(s)

MUIR, DAVID HUGH

Examiner

Aaron L Enatsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 49-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

Response to Amendment

Examiner acknowledges receipt of amendment on 12/22/03, claims 26-48 are cancelled, and new claims 49-69 were added.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 49-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dickinson 5,951,397 in view of Rysavy et al. 4,929,935 (Hereafter, Rysavy) in view of Webb et al. 5,216,504 (Hereafter, Webb) in view of Buckley et al. 5,969,756 (Hereafter, Buckley) and further in view of Carroll EP 0150903A2. Dickinson teaches of a variety of electronic video games that maybe played in conjunction with a touch-panel display screen (1:10-35) that additionally includes a housing and value input device (Fig. 1). Dickinson does not teach aspects of display alignment. Rysavy teaches a manual process for aligning a touch screen display for solving the well-known issue of display degradation and drift (Abstract and 1:13-35). As Dickinson teaches the use of a touch screen displays, the need is obviated through Rysavy's disclosure to have at minimum, periodic display screen adjustments due to frequent misalignment. Therefore it would have been obvious to one of ordinary skill in the art at the time to modify the touch screen game system by Dickinson to include the touch screen alignment system of Rysavy to provide a consistent gaming interface experience for

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game players. Dickinson in view of Rysavy, while providing for display alignment, do not teach the features of automatic display alignment using a display pattern and an image capture device to process comparisons between actual calibration and known correct calibration. Webb teaches an automatic electronic display testing and alignment system. The aforementioned system displays an alignment object with electronically distinguishable regions defined by video patterns, with multiple different detectable characteristics. The regions and the region characteristics are electronically distinguished through the use a single camera (2:13-37 and Fig. 1) and the characteristics include color (3:6). Webb also discloses having dynamic search rules to adjust display alignment (Fig. 11) following a dynamically determined path shown as following subsequent pixels during search rule implementation (Fig. 3 and 4) and a plurality of stored values indicating coordinates of a predetermined alignment object which is used for comparison of the captured alignment object (14:46-48) to determine whether correct alignment tolerances have been reached. As Dickinson in view of Rysavy teach manual adjustment of a touch screen gaming device one of ordinary skill would generally be motivated to automate a manual process. Automation is further obvious through Webb's motivation to create a fast, flexible, and cost effective process over previous manual operations. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sensor and calibration techniques taught by Webb to create a cost effective touch screen calibration gaming machine taught by Dickinson in view of Rysavy. Dickinson in view of Rysavy in view of Webb however, does not teach a plurality of unique characteristics in each of the plurality of video patterns. Buckley teaches a test and alignment system for electronic display devices that uses a plurality of unique characteristics in each of a plurality of video pattern regions (Fig. 8). One would be motivated to modify Dickinson in view of Rysavy in

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view of Webb to use the plurality of characteristically unique video patterns taught by Buckley because improved testing systems are continually being sought (2:28-30) where the plurality of different patterns would allow a greater series of tests to be performed, which would increase the accuracy of the tests. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Dickinson in view of Rysavy in view of Webb to use the increased video patterns described by Buckley to create finer grained tests to increase accuracy of alignment procedures. Dickinson in view of Rysavy in view of Webb in view of Buckley however, does not teach the sensor with a field of view smaller than the image used for the purpose of determining proper calibration. Carroll teaches an automated display alignment technique that uses a photoresponsive device that is mounted in a fixed position relative to a screen that captures a predetermined fixed position on the screen (Abstract and Claims 1-7). The sensor is looking for a generated test pattern, and modifying the position of a test pattern in response to the detected test pattern signals. As evidenced above, the multitudes of display alignment devices and procedures are used to combat display drift and keep touch detection systems accurate. Likewise, one would be motivated to use the display alignment taught by Carroll for the reasons stated above, and additionally because Carroll provides further advantages of immediate compensation to the display regardless of external influences, while keeping the procedures simple and economical (2:9-3:4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Dickinson in view of Rysavy in view of Webb in view of Buckley to use the fixed area display sensor taught by Carroll to insure that immediate compensation maybe applied to the display and input operation to insure accuracy.

Response to Arguments

Applicant's arguments filed 12/22/03 have been fully considered but they are not persuasive. Applicant has focused arguments with respect to the fact that the instant invention captures only a small area of a display screen, versus that of Webb that may capture the entire display. Regardless of the size of the area of the image capture, the underlying process remains the same. A captured image by the sensor would compare an actual value with respect to a predetermined value and adjust display image accordingly. Additionally, contrary to Applicant's belief that because the entire screen is captured there would be no need to alter the position of the image, the function of the system relies on the fact that if the image captured does not match with an expect value, the image would need to be moved to gain alignment. If no image movement is performed, how can alignment be achieved? Therefore, the image must be moved to gain alignment.

Examiner has also included Carroll to provide further evidence that moving an image that is larger than in size than the area of an image sensor is known in the art for the purposes of display alignment. Therefore, Applicant's arguments are not persuasive and the applicant remains rejects.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron L Enatsky whose telephone number is 703-305-3525. The examiner can normally be reached on 8-6 M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa Walberg can be reached on 703-308-1327. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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